

AMENDMENT TO THE CLAIMS

Claims 1-2, 6-7 and 10-15 have been canceled. Claims 16-21 were previously presented. Previously presented claims 3, 5, 8 and 16-17 are amended herein.

1. (Canceled)

2. (Canceled)

3. (Currently Amended) A viable cellular population produced by a method comprising: infecting the cells with a retrovirus in the presence of an effective immobilized amount of material including a ligand which binds to the cells and a ligand which binds to the retrovirus, so as to co-localize the retrovirus and the cells and increase the transduction efficiency of the cells, said infecting being conducted in a medium essentially free from hexadimethrine bromide, wherein said infecting is performed without cocultivation in the presence of retroviral producer cells.

4. (Original) The viable cellular population of claim 3 which comprises hematopoietic stem cells.

5. (Currently Amended) A method for cellular grafting, comprising: grafting a mammal-human with a viable cellular population of human cells produced by a method comprising infecting the cells with a retrovirus in the presence of an effective immobilized amount of material including a ligand which binds to the cells and a ligand which binds to the retrovirus, so as to co-localize the retrovirus and the cells and increase the transduction efficiency of the cells, said infecting being conducted in a medium essentially free from hexadimethrine bromide, wherein said infecting is performed without cocultivation in the presence of retroviral producer cells.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) A method for cellular grafting, comprising:
grafting a mammal—human 1 with a cellular composition, comprising a substantially retroviral
transduced population of viable human cells, said composition being -essentially free from
both retroviral producer cells and hexadimethrine bromide.

9. (Original) The method of claim 8 wherein the cellular population comprises
hematopoietic stem cells.

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Currently Amended) The viable cellular population according to method of
claim 3, wherein the medium is essentially free from any polycationic agent which
increases the efficiency of transduction of the viable mammalian cells by the retrovirus in
co-culture, but which agent reduces the efficiency of transduction of the cells by the
retrovirus in the presence of said material.

17. (Currently Amended) The viable cellular population according to method of
claim 16, wherein said material comprises substantially pure fibronectin, substantially
pure fibronectin fragments, or mixture thereof.

18. (Previously Presented) The method of claim 5, wherein the medium is essentially free from any polycationic agent which increases the efficiency of transduction of the viable mammalian cells by the retrovirus in co-culture, but which agent reduces the efficiency of transduction of the cells by the retrovirus in the presence of said material.

19. (Previously Presented) The method of claim 18, wherein said material comprises substantially pure fibronectin, substantially pure fibronectin fragments, or mixture thereof.

20. (Previously Presented) The method of claim 8, wherein said composition is essentially free from any polycationic agent that is effective to increase the efficiency of transduction of the viable cells by the retrovirus in co-culture.

21. (Previously Presented) The method of claim 20, wherein said viable cells have been transduced in the presence of substantially pure fibronectin, substantially pure fibronectin fragments, or mixture thereof, so as to increase the efficiency of transduction by the retrovirus.